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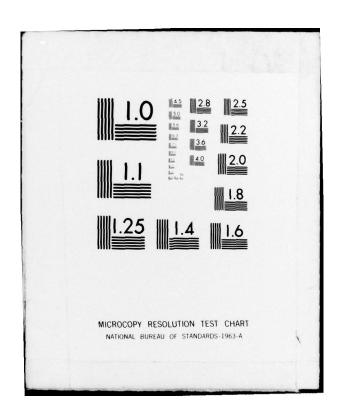
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FINAL TECHNICAL REPORT

for

Grant AFOSR 78-3682



Uncent Mckoy

Vincent McKoy
Principal Investigator
Professor of Theoretical Chemistry
California Institute of Technology

July 27, 1979

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number,	
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collisions - photon-molecule collisions	
The First Asilomar Conference on Electron— and P was held August 1-4, 1978 in Pacific Grove, Califortogether forty scientists who are actively involved tron scattering by, and photoionization of, small m collected the contributions of the invited speakers,	rnia. This meeting brought in theoretical studies of elec- olecules. In this volume are

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The funds provided by this grant were to provide support for the First Asilomar Conference on Electron-Molecule and Photon-Molecule Collisions. This conference was held August 1-4, 1978 in Pacific Grove, California. The chairmen and organizers of the conference were Vincent McKoy, Thomas N. Rescigno, and Barry Schneider. The names and affiliations of the participants are shown on the attached sheets.

The purpose of this conference was to bring together forty scientists who are actively involved in theoretical studies of electron scattering by, and photoionization of, small molecules. The needs for quantitatively accurate electron- and photon-molecule scattering cross sections in various research efforts is putting stringent demands on present theoretical methods. The goal of the meeting was to assess the scope of those methods which are presently being used in the study of electron- and photon-molecule collisions, to identify the key advantages and limitations of the various methods and to see which techniques are best suited for a quantitative study of the important problems in molecular scattering. With this goal in mind, forty atomic and molecular scientists, actively studying electron-molecule collisions and photoionization processes from different theoretical approaches met for an intensive three day workshop. The titles and authors of the contributions are shown on the attached sheet. We have collected the contributions of the invited speakers, as well as the roundtable and evening discussions condensed from taped recordings of the entire proceedings in a single volume. This volume collects in a single source material which would normally be found in a variety of technical journals. Many of these techniques are still being developed and have not yet found their way into text books. SCIENTIFIC RESEARCH (AFSC)

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A. D. BLOSE
Technical Information Officer

A camera-ready copy of this volume has been submitted to Plenum Press, New York, and a copy of this was given to Dr. Ralph Kelley of the AFOSR, Bowling Air Force Base, on June 8, 1979. The volume containing approximately 360 pages will be published by Plenum Press in September 1979. A copy of the volume will be provided to the AFOSR as soon as it is available.

Attachments:

Re: Proceedings of the First Asilomar Conference on Electron-Molecule and Photon-Molecule Collisions

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ELECTRON- AND PHOTON-MOLECULE COLLISIONS

Proceedings of the First Asilomar Conference

Editors

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Workshop on L ² -Methods
Workshop on Single-Center Techniques

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California Institute of Technology

ABSTRACT

The First Asilomar Conference on Electron- and Photon-Molecule Collisions was held August 1-4, 1978 in Pacific Grove, California. This meeting brought together forty scientists who are actively involved in theoretical studies of electron scattering by, and photoionization of, small molecules. In this volume, are collected the contributions of the invited speakers, as well as the roundtable and evening discussions condensed from taped recordings of the entire proceedings. The subject matter reflects current activity in the field and describes many of the techniques that are being developed and applied to molecular collision problems.